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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,316	04/27/2000	SERGE GIDON	GDU-1005	5430
27572	7590	07/29/2003		
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER	
			SCOTT JR, LEON	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/530,316	GIDON ET AL.
	Examiner	Art Unit
	Leon Scott, Jr.	2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 August 2002 and 18 April 2003.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 25-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 25-31,32-36,37-40 and 41-45 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

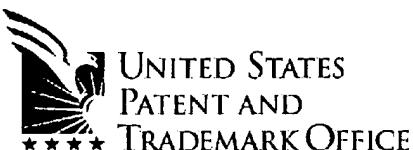
#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |



Leon Scott, Jr.

Primary Examiner



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**35 U.S.C. 101 reads as follows:**

**Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.**

**Claims 25-31,32-36,37,38,39,40 and 41-45 are rejected under 35 U.S.C. 101 because:**

**In claims 25-31 and 32-36 applicants make claim for “..a number of antenna-forming means for emitting radiation at the frequency  $\omega_1 - \omega_2$ .” recited in: lines 11 and 12 of claim 25; lines 8 and 9 of claim 32.**

**In claims 37 and 38 applicants make claim for “A radar device having a frequency emitting device as in claim 25,...” recited in lines 1 and 2 of claims 37 and 38; in claims 39 and 40 applicants make claim for “The radar device of claim 37..” recited in line 1 of claims 39 and 40; and in claim 35 applicants make claim for “The radar device of claim 38..”.**

**It is pointed out to applicants that the antenna forming means and the alleged radar device operate in the RF portion of the EM spectrum with a cut-off in the GHz range (approximately 700 GHz); on the other hand laser emitters do not operate in this portion of the spectrum and have a cut-off in the THz range. Since it can not be determined from applicants disclosure how a device which operates in the rf range can emit radiation in the optical frequency range; the device will not function as claimed. Thus the disclosed invention is inoperative and therefore lacks utility.**

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Claims 25-31,32-36,37-40 and 41-45 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a plurality of laser emitter pairs emitting radiation at first and second frequencies  $\omega_1$  and  $\omega_2$ , does not reasonably provide enablement for **antenna-forming means for emitting radiation at the frequency  $\omega_1 - \omega_2$** , or a radar device. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. In general, the numerous means recited in the specification (see, for example: p. 5, p. 6, p. 8, p. 13 line 1, p. 14 line 8, p. 21 lines 3-5, p. 25 line 15, p. 26 lines 12 and 13); and the **antenna-forming means and radar device** (see for example: p. 5 lines 15 and 16, p. 6 lines 14 and 15, p. 8 lines 22 and 23, p. 12 lines 7 and 8) in particular make it virtually impossible to determine the scope of applicant's invention. Clearly, the device will not function as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25-31,32-36,37,38,39,40 and 41-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 25 lines 3 and 4 and in claim 32 line 3, the recitation "... $\omega_1$  and  $\omega_2$  being different;" is indefinite and incomplete in that no structure has been recited which will make  $\omega_1$  and  $\omega_2$  different. In lines 5 and 6 of claim 25 it is not clear within the context of claim language how the phase delay element is adapted to implement a phase delay in the feedback laser emitter; claim 25 is indefinite and

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incompl te. In line 7 of laim 25 what i a frequ ncy and phas *manner*; likewis in lin 8 of laim 25 what i a frequency, phase and amplitude *manner*, claim 25 is indefinite and incomplete. In lines 11 and 12 of claim 25 and in lines 8 and 9 of claim 32 it is not clear the antenna-forming means is capable of emitting radiation; claims 25 and 32 are functional at the point of novelty. In lines 2 and 3 of claim 29 it is not clear how the reference source connectively relates to the device as a whole; claim 29 is indefinite and incomplete. In line 3 of claim 31 what *another beam* is being claimed; claim 31 is indefinite and incomplete. Since no *radar structure* has been recited in any of claims 37-45, no radar device can be formed, thus applicants are required to: (a) amend the claims to include structure of the radar device, or (b) delete the term *radar device* from the preamble of the claims such that the claims are commensurate in scope with the invention claimed.

**Applicant's arguments with respect to claims 25-31,32-39 and 40-45 have been considered but are moot in view of the new ground(s) of rejection.**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 FR 1.136(a) will be calculated from the mailing date of the advi ory a tion. In n event, however, will the tatut ry

**period for reply expire later than SIX MONTHS from the mailing date of thi final action.**

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Scott, Jr. whose telephone number is 703-308-4884. The examiner can normally be reached on Monday - Friday, 6:30am - 5:00pm.**

**If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul P. Ip can be reached on (703)308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.**

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.**



Leon Scott, Jr.  
Primary Examiner  
**Leon Scott, Jr.**  
**Primary Examiner**  
**Art Unit 2828**

lsjr  
July 26, 2003